

Pattern Puzzles – Pack 38

Puzzle 1. What comes next in the sequence?

10	30	68	130	222	350	520	?
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|--------|--------|--------|--------|
| A) 744 | B) 732 | C) 738 | D) 690 |
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Puzzle 2. What comes next in the sequence?

1	1	5	7	13	25	45	83	?
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|--------|--------|--------|--------|
| A) 128 | B) 108 | C) 153 | D) 125 |
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Puzzle 3. What comes next in the sequence?

14	7	6	18	14	11	22	21	?
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| A) 17 | B) 16 | C) 26 | D) 28 |
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Puzzle 4. What comes next in the sequence?

12	24	20	40	36	72	68	136	?
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| A) 273 | B) 132 | C) 272 | D) 136 |
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Puzzle 5. What comes next in the sequence?

16	48	39	117	108	324	315	945	?
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| A) 2835 | B) 936 | C) 945 | D) 2836 |
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Puzzle 6. What comes next in the sequence?

6	4	8	14	9	15	22	14	?
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- A) 22
 B) 23
 C) 19
 D) 30

Puzzle 7. What comes next in the sequence?

13	5	4	16	8	6	19	11	?
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- A) 14
 B) 8
 C) 9
 D) 22

Puzzle 8. What comes next in the sequence?

5	2	3	10	15	28	53	96	?
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- A) 124
 B) 177
 C) 149
 D) 187

Puzzle 9. What comes next in the sequence?

14	42	37	111	106	318	313	939	?
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- A) 934
 B) 2817
 C) 939
 D) 2818

Puzzle 10. What comes next in the sequence?

2	4	4	10	18	32	60	110	?
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- A) 171
 B) 142
 C) 202
 D) 170

Answer Key

1. **C) 738**

1st diffs: 20, 38, 62, 92, 128, 170.

2. **C) 153**

Rule: $a(n) = a(n-1) + a(n-2) + a(n-3)$
(tribonacci).

3. **B) 16**

Three interleaved arithmetic series (period 3).

4. **C) 272**

Alternating: $\times 2$ (odd steps), -4 (even steps).

5. **A) 2835**

Alternating: $\times 3$ (odd steps), -9 (even steps).

6. **A) 22**

Three interleaved arithmetic series (period 3).

7. **B) 8**

Three interleaved arithmetic series (period 3).

8. **B) 177**

Rule: $a(n) = a(n-1) + a(n-2) + a(n-3)$
(tribonacci).

9. **B) 2817**

Alternating: $\times 3$ (odd steps), -5 (even steps).

10. **C) 202**

Rule: $a(n) = a(n-1) + a(n-2) + a(n-3)$
(tribonacci).